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ABSTRACT

The San Mateo Educational Resources Center (SMERC) has, since 1969, been operating an educational information and dissemination center, providing "Research in Education" (RIE), "Current Index to Journals in Education" (CIJE), periodical, book, and locally collected fugitive materials for educators within San Mateo County and other counties, institutions, professional associations, and similar agencies throughout California and the Western region. In 1971, the U. S. Office of Education (and latterly, the National Institute of Education) granted funds to SMERC to develop satellite information centers in the Northern, Southern, and Central Valley regions of California; to improve the acquisitions program of the Center; to improve search services to clientele primarily through developing computer access to RIE and CIJE; and to develop bases for continuing evaluation of the Center's services. In addition, a small grant was made for purposes of training others in information service operation. As a result of this grant, SMERC is to serve as a model for other states and regions wishing to establish educational information systems. This is the final report of the California Integrated Network of Educational Information Services Project, as the grant was referred to in its original proposal. As such it covers activities from July 1, 1971 to June 30, 1973. (Author/SJ)

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FINAL REPORT

Project No. 1-0679
Grant No. OEG-0-71-3644

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A PROJECT TO PROVIDE FOR THE EXTENSION AND EXPANSION OF THE BAY AREA INFORMATION CENTER TO A WIDER SERVICE AREA AND FOR THE DEVELOPMENT OF AN INTEGRATED NETWORK OF INFORMATION SERVICES IN CALIFORNIA

July 1973

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office of Education
National Center for Educational Research and Development

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As a result of this grant, SMERC is to serve as a model for other states and regions wishing to establish educational information systems, particularly those who wish to consider using a framework or system including a "super-center", with responsibilities for major acquisitions, microfilming, publications, the majority of search processing, and training; and satellite centers, with responsibilities for district negotiations and a limited collection and search capacity. Such a system enables a single major collection to be used to serve both a wide geographic region and a diversity of clientele, and seems particularly effective in serving educational practitioners.

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

OFFICE OF EDUCATION
NATIONAL CENTER FOR EDUCATIONAL RESEARCH AND DEVELOPMENT

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GENERAL DESCRIPTION OF THE PROJECT

The San Mateo Educational Resources Center (SMERC)* has, since 1969, been operating an educational information and dissemination center, providing RIE, CIJE, periodical, book, and locally collected fugitive materials for educators within San Mateo County and other counties, institutions, professional associations, and similar agencies throughout California and the Western region. In 1971, USOE (and latterly, NIE) granted funds to SMERC to develop satellite information centers in the Northern, Southern, and Central Valley regions of California; to improve the acquisitions program of the Center; to improve search services to clientele primarily through developing computer access to RIE and CIJE; and to develop bases for continuing evaluation of the Center's services. In addition, a small grant was made for purposes of training others in information service operation.

As a result of this grant, SMERC is to serve as a model for other states and regions wishing to establish educational information systems, particularly those who wish to consider using a framework or system including a "super-center", with responsibilities for major acquisitions, microfilming, publications, the majority of search processing, and training; and satellite centers, with responsibilities for direct negotiations and a limited collection and search capacity. Such a system enables a single major collection to be used to serve both a wide geographic region and a diversity of clientele, and seems particularly effective in serving educational practitioners.

This is the final report of the California Integrated Network of Educational Information Services Project, as the grant was referred to in its original proposal. As such, it covers activities from July 1, 1971 to June 30, 1973. During this period, major SMERC accomplishments included the following:

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* In the original proposal and grant, the information service was referred to as the Bay Area Information Center (BAIC). Since that time, the Center has been entitled, and become commonly known as, the San Mateo Educational Resources Center (SMERC) and will be referred to by the latter title throughout this report.

-----12,851 searches were completed for clients, of which 6,566 were requests for specific documents, 1,739 were requests for computer searches of RIE and CIJE indexed documents, and 4,896 were requests for in-depth searches covering RIE, CIJE, fugitive materials, special files and library references.

-----13 Resource Guides/Bibliographies and 5 Newsletters were published and distributed to clientele (See Appendix A for a list of titles of these publications). An average of 6,330 copies of each of these publications were printed and distributed.

-----85 presentations to client groups concerning SMERC services available to them were made, the majority of which were held at the clients' location.

-----8 training sessions in information management, the negotiations process, and similar concerns were held. A total of 120 persons, most of whom are serving as linking agents between clientele and the information system, attended these sessions.

-----The data bank available for searching for SMERC clientele increased from approximately 90,163 documents to approximately 148,261 documents, including all of RIE, a major part of CIJE, SMERC's own FIDO (Fugitive Information Data Organizer), and other special collections.

-----The number of agencies contracting for search services with SMERC increased from 11 to 37.

-----The number of persons employed on a full time equivalent basis by SMERC to service its clientele increased from 10 to 22 1/2.

-----The major search strategy used by SMERC staff changed from reliance on hand-searching of RIE, CIJE, and FIDO catalogues, to a continually increasing reliance on computer searches utilizing Lockheed Corporation's DIALOG program.

Of course all of the activity and growth indicated by the data presented above cannot be attributed to the California Integrated Network of Information Services Project. Specific activities within the project are described in the subsequent section of this report. However, the added impetus given to the total information system operation by this project extended in intangible ways beyond these particular actitivies. It will be missed!

SUMMARY OF ACTIVITIES, JULY 1, 1971 to JUNE 30, 1973

The following summary is based on the objectives appearing in the original application for Research Support dated April 22, 1971, and the restatement of these objectives in the Request for a 6-month Extension submitted on November 14, 1972. The numeration of the objectives will be that used in the latter application. The statements of the objectives are slightly reworded in order to include both original and "extension" objectives.

Objective 1.0

To develop and give operational support to a regional resource center in the Southern California Region in such a way that this center (hereafter referred to as Southern California Area Information Network, or SCAIN) can become a self-supporting satellite of SMERC by July 1, 1973.

Activities and Results

1.1 SCAIN began operation under the aegis of Whittier College, Whittier, California, in September, 1971. Point-to-point communication between SCAIN and SMERC was established shortly thereafter.

1.2 Approximately 658 requests for information were received and negotiated by SCAIN and processed by SMERC during the project period.

1.3 All SCAIN personnel involved in the negotiation of searches, and operation of the SCAIN satellite were trained by SMERC as linking agents. SCAIN personnel participated in 6 different workshops held at SMERC for this purpose.

1.4 On 14 separate occasions, SMERC staff provided presentations concerning SMERC-SCAIN services and information usage to clientele within the SCAIN service area.

1.5 Financial support for SCAIN was provided according to the budgets submitted with the California Integrated Network of Information Services Project application and the Request for Extension.

1.6 During the period December, 1972 to May 1973, a total of 346 searches were negotiated and completed for SCAIN clientele. During the same period of 1971-72, a total of 120 searches were completed. This

(approximately) 3 to 1 increase in number of searches involved a similar increase in the use of point-to-point communication between the satellite and SMERC.

1.7 Management support and planning assistance were provided to SCAIN by SMERC staff, particularly Dr. Frank Mattas, Director, continually during the project period. This assistance was provided by telephone, and by trips either by Dr. John Dean (Director of SCAIN) and other SCAIN staff to Redwood City, or by Dr. Mattas to Whittier. For example, during the period of the extension of the project, at least 10 telephone conferences were held, and 3 planning meetings were held at SCAIN involving personnel of both agencies.

1.8 At the time of the preparation of this report, negotiations are underway with potential client agencies for SCAIN, particularly with the Orange County Superintendent of Schools and Kern County Superintendent of Schools. Whether or not SCAIN will be able to operate on a self-supporting basis during FY 1973 depends upon the success of these negotiations.

Objective 2.0

To cooperate with the State Department of Education in planning activities for the development and improvement of statewide information system operations.

Activities and Results

1.0 During the first 18 months of the project a number of meetings, contacts, and discussions were held with various State Department officials concerning the development of educational information systems. However, various decisions and priorities in the State Department, particularly the concern with major reorganization and changes in personnel, led that agency to give a relatively low priority to information system development, in spite of considerable interest on the part of individuals in the Department. In the Fall of 1972, word that NIE was becoming strongly interested in establishing Field Agent activities in SEA's brought renewed interest at the state level, and 2 meetings were held with Dr. David Evans of the Bureau of Planning and Development concerning

SMERC-State Department cooperation. As a result of these meetings, David E. Rawnsley, Consultant to SMERC, prepared and submitted a brief plan for services which SMERC might provide to the State Department. (These plans are included in this report as Appendix B). However, no action has been taken at the State level at the time of this report on either these plans or other ideas for further development of a state-wide information system.

2.2 In late June, 1973, SMERC was contacted by the staff of the State Senate Select Committee on Innovation and Change in the Administration and Structure of Public Education. The Committee expressed interest in the state of information systems in California and nationally, and in several other areas connected with innovation and change in education and the evaluation of such changes. SMERC has and will continue to cooperate with this Committee and other agencies at the state level in order to assist in the development of statewide information systems.

Objective 3.0

To support the State Department of Education in the development of needed satellite centers, particularly in Northern California, and to continue to support such satellites after their establishment.

Activities and Results

3.1 In lieu of State Department activity in this field (see Objective 2.0), SMERC assumed the initiative in developing satellite centers in Northern California, through the Northern California Planning and Development Center, Chico, and the Central Valley, through the Office of the Superintendent of Schools of Tulare County, Visalia. Both of these Centers are presently in operation.

3.2 Point-to-point communication was established with both of these satellites.

3.3 Since their establishment, a total of 1,659 searches have been received and negotiated by these centers, and processed by SMERC (of the total, approximately 2/3rds were originated by clients of the Northern California Center).

3.4 Site visitations by SMERC staff were made 18 times in these satellite's service areas for the purpose of introducing clientele to

the services being offered, and training clientele in their use.

3.5 All personnel of both satellites have been trained by SMERC staff in negotiation processes and information management.

3.6 During the period of 1 January, 1973 and May 30, 1973, a total of 273 searches were completed for clientele of these satellites. For a similar period of 1972, the total was 220. A comparable increase was made in the time used for point-to-point communication.

Objective 4.0

To continue to expand SMERC's collection, including ERIC materials, fugitive materials, and other special collections.

Activities and Results

4.1 Approximately 7,000 documents have been accessioned into FIDO (Fugitive Information Data Organizer) during the project period. Accessioning includes assigning descriptors to the documents, indexing and generating catalogues and putting the documents into microform.

Investigation has also been made of the feasibility, desirability, and costs of providing computer indexing and accessibility for the Fugitive Information Data Organizer. This study, in the form of a proposal, was submitted to NIE during the Spring of 1973, and appears as Appendix C. However, lack of sufficient funds has made it necessary to put this project into abeyance for the time being.

In order to be prepared for placing FIDO indices into the computer, it has become the practice at SMERC to write summaries or "mini-abstracts" for all documents being accessioned into FIDO.

4.2 All ERIC documents and indices produced during the project period have been acquired by SMERC. The SMERC collection of journals cited in either CIJE or Education Index has expanded to 700 titles, and an effort has been underway to assure that all titles include issues of each journal since 1969.

4.3 In addition to RIE, CIJE, and FIDO, the SMERC system also includes:

-----Search access to the NTIS through the DIALOG system.
-----Special collections of UNIPACs, Learning Centers, and performance objectives.
-----A staff-developed cross-indexing of ERIC numerations and the AIMS and ARMS collections, in order to increase access to these collections.
-----Participation in studying the feasibility of establishing a library network which would include public, university, and industrial/technical libraries.

Objective 5.0

To provide rapid and effective information services to educators and education decision-makers who are clients of SMERC and its satellites, and where appropriate, to improve the efficiency of the services.

Activities and Results

5.1 Access to Lockheed Corporation's DIALOG computer program was completed, and all appropriate SMERC staff have been and continue to be trained in its use. Training includes periodic training sessions with Lockheed personnel to increase effective use of the system, and circulation to all staff of the DIALOG newsnotes. Since access to DIALOG was established, an approximate total of 5,330 searches have been processed for SMERC, using a total of approximately 1,200 hours of computer time. DIALOG data indicates that SMERC is the most active user of the system.

5.2 Preparations have been made to increase efficient access to FIDO (see 4.1 above).

5.3 The service area of SMERC has extended from the 11 agencies being served at the time of the original proposal for this project (April, 1971) to a total of 37 counties, regions, institutions, and professional associations presently being served.

Objective 6.0

To provide training of staff, linking agents, and clientele in order to assure the effective use of SMERC and related resources.

Activities and Results

6.1 During the Fall of 1972, a schedule of meetings was established for staff training in areas of educational content, search techniques, and

internal management. Although this schedule was sometimes compromised by events (such as the move of SMERC into new facilities in February, 1973), such meetings were held approximately every two weeks. Training was done by SMERC staff, DIALOG personnel (see 5.1 above), and on occasion by personnel from such agencies as the ERIC Clearinghouse on Media and Technology, Stanford University.

6.2 A total of 8 training sessions were held for persons assuming the role of linking agents for the client agencies and satellites of SMERC. About 120 people attended these sessions, which were generally of 2 or 3 days duration. These sessions typically included introduction to the role of information systems in education, familiarization with ERIC and the SMERC collection, and intensive training in the search negotiation process and linking agent functions. Training was done primarily through role-playing and actually performing searches.

6.3 As an addendum to the California Network of Educational Information Services Project, SMERC contracted with NIE to peform linking agent and information management training for persons designated by NIE. A report of the training undertaken under this contract, including evaluation of the activity, is included as an addendum to this report, beginning on page 15.

6.4 A total of 85 presentations, seminars, and similar programs have been held to familiarize clientele and potential clientele with the services available from SMERC. The majority of these presentations were given to staffs of individual schools. All but a small number of these activities have taken place in client institutions. A multimedia presentation describing ERIC and SMERC was developed for use at such presentations.

6.5 A total of 50,000 brochures describing SMERC services and how to use them were distributed in various ways to clientele. In addition, all other publications of the Center (see Objective 8.0 below) include such descriptive materials about the Center and how a client can submit a search or order documents.

Objective 7.0

To establish the management of SMERC on a management by objectives/ results basis.

Activities and Results

7.1 As a first step toward achieving this objective, objectives stated in performance terms for the major functions of the Center were developed during the Winter of 1972-73. A major concern in the development of these objectives was to provide a basis for assessing the degree to which each of the major functions were being accomplished successfully.

Objective 8.0

To develop, publish, and distribute to clientele News Notes, bibliographies, resource guides, and catalogues.

Activities and Results

8.1 During the period June, 1972 to June, 1973, 18 bibliographies, resource guides and catalogues were published. In addition, 5 editions of News Notes were published. All of these publications were distributed to clientele in a quantity at least equal to the number of schools being served by the contracting county or other agency. Note: Funds from the California Integrated Network of Educational Information Services Project did not cover the cost of preparation and distribution of these publications except for those distributed to the satellites included in the project. (See Appendix A for titles.)

Objective 9.0

To systematically evaluate the effectiveness of system services.

Activities and Results

9.1 Reference to the measurable objectives developed for SMERC operations was made in 7.1 above. These objectives are included as Appendix D. For those objectives which require input from clientele, restrictions on time and resources, particulary given the major move from one facility to another, made it impossible to undertake this form of evaluation during this fiscal year.

As both an assessment of the services provided under contract with the Arizona Educational Information System, Arizona State University, Tempe, and as a pilot test of assessment methods to be applied next year, a small scale study was done with a sample of Arizona clientele.

Appropriate parts of the report of that assessment (excluding considerations of personnel performance) are included in this report as Appendix E.

9.2 A system for documentation of the activities of SMERC in reference to searches completed, types of search strategies used, total microfiche produced, and related matters was established in September, 1971. The results of this documentation, which is used both for long-range assessment and for short-range planning and policy development, are included in tabular and graphic form in Appendix F. Examination of this data leads the Center to the following conclusions, among others.

-----The large increase in the number of searches completed, particularly during FY 1972-73, is due more to an increase in the number of agencies contracting with SMERC rather than significant increases in the number of individuals within a contracting agency who are making search requests. While still continuing its efforts to make information services available to more clientele in the Western region, a major effort will be made during FY 1973-74 to increase the number of individuals within existing contracts who request searches.

-----There has been a significant shift away from in-depth searches (i.e. searches in which the Research Assistant makes judgments concerning the relevance of documents to the search request, and responds to the request by sending full copies of only those documents which appear to be most relevant) to responding to searches by sending the requester a computer print-out of abstracts of all documents cited by the computer as a result of the search logic used. This shift has implications both in terms of the cost of searches (after a certain cutoff point, which has not been determined as yet, using the computer print-out becomes more expensive than sending a limited number of specific documents) and in terms of client satisfaction. We do not know as yet whether clients prefer one type of response to another, although there is reason to believe that preferences vary with the role (teacher, administrator, researcher, etc.) of the requester.

-----There has been, and continues to be, an increase in the number of searches which are requests for specific documents in microfiche format. Some of this increase can be attributed to the fact that certain of the satellites and other contracting agencies have the capabilities of doing certain searches themselves, in which cases SMERC's role is limited to

reproduction of the documents uncovered in the search. An undetermined amount of the increase in requests for specific microfiche is also due to the increase in the number of computer print-outs being sent in response to search requests as described above. In this case the client follows up the original search with an order for specific fiche he/she has selected from the print-out. An effort was made during the Spring of 1973 to determine to what degree such use was being made of print-outs, but the data collected (by including a special order form with the print-out) appeared to be too unreliable to be of much use.

However, the major reason for such increase in requests for specific microfiche would appear to be a result of the publication program of SMERC briefly described under Objective 8.0 above. This is particularly true of the bibliographies/resource guides. The success of this program not only has assured its continuance and if possible its enlargement, but has also led SMERC staff to investigate other formats for providing clientele with the opportunity to in effect do their own searches.

MAJOR OUTCOMES OF THE PROJECT

Although the budget of the California Integrated Network of Educational Information Services Project represented only a relatively small proportion of the total operating budget of the San Mateo Educational Resources Center, its direct and indirect effects on the Center were great. While not all of the major changes summarized below can be directly attributed to the Project, it is doubtful if any of them could have occurred without the added impetus given by the Project.

-----The establishment of access to the DIALOG system and the training of SMERC staff in its use not only increased the effectiveness with which staff could meet information needs of clientele, but also enabled the Center to offer its services to a much broader range of client, both geographically and in role. Without on-line access to DIALOG, it is very doubtful that the number of searches done could have been handled without increasing staff beyond the point of feasibility in terms of cost to client agencies.

-----The establishment of the three satellite centers, and the expansion of the geographic area served to Arizona, through the Arizona Educational Information System, which in reference to providing access to ERIC and similar information files is in effect a satellite. These Centers (and in particular the Center in Northern California) provide a test of the model of information services which includes a "super-center" or information broker serving satellites which themselves are capable of providing limited services to clientele, including (as in the case of the Northern California Center) staff whose function is strongly analogous to that of a field agent. Up to this date, the test of the model has proven successful.

-----Establishing the basis, through the development of objectives, functional analysis, and documentation, for assessing the effectiveness of the total service and its constituent parts. The tremendous growth of SMERC during the last two years, while certainly not haphazard, has not allowed for the time to be taken by staff to analyze trends in search demands and related matters to see what changes, if any, are needed in the system in order to more efficiently meet information needs of clientele. The activities under Objectives 7.0 and 9.0 cited above will enable the management of the system to undertake continual analysis of the total operation based on specific data.

-----Providing training of linking agents and clientele, both through training sessions or presentations and through publications. The effectiveness of an information system depends as much if not more on the ability of its clientele to use the system as on its internal operation and collection. During the last two years SMERC has developed a cadre of staff, and related materials and methods, to do an effective job of training linking agents. That this is so is indicated by the evaluation of the training session described in the addendum to this report beginning on page 15. Through such training, a wide range of personnel in the satellites and other contracting agencies (including those with backgrounds ranging from secretarial training to advanced degrees in education and library sciences) have become proficient as linking agents, and are well able to perform this most important role in the total information system.

The training of clientele to become habitual and informed users of the system is less easy to evaluate. That the presentations made are effective seems to be indicated by the fact that search demands sharply increase in a given area after a presentation is made. But that these presentations are not as effective as might be hoped in making system use habitual is indicated by the fact that search demands drop off fairly rapidly in many cases within two or three months after such a presentation. Having SMERC staff make presentations in every region every two or three months is not an economically feasible way of maintaining increased search demands. An alternative which has been successful in some contracts is for either the linking agent or some other person on the staff of the contracting agency serve the function of Field Agent, at least in reference to information system activities. SMERC plans to investigate what types of training and other support might be necessary to spread this practice to all contracting agencies.

There are three areas in which results over the project period were less satisfactory than anticipated:

----In spite of continued efforts on the part of SMERC, the State Department of Education has not become active in the field of information systems, nor has the department entered into any close cooperative efforts with SMERC.

-----Search load has not increased as expected from the Central Valley satellite, and the activities of the SCAIN satellite have not expanded at the rate hoped for. The former situation appears to be due to a change in personnel, with a resultant slackening in the client-centered activities of the linking agent. It is hoped that some planned activities in the Fall will reverse the trend. In the latter situation it would appear that, in spite of strong efforts on the part of SCAIN personnel, the selection of a private college as the administrator for the satellite has made it more difficult for SCAIN to develop relationships with a number of potential clientele, particularly those serving large numbers of students. This comment is in no way meant to be a criticism of either SCAIN personnel or Whittier College. Rather it is an oberservation concerning the perceived viability of a satellite on the part of potential clientele, particularly

those whose size leads them to see such functions as information services as being more appropriately theirs:

-----Due to financial limitations, FIDO catalogues have not been put into the computer, therefore making hand-searching for documents in this collection necessary. An unsolicited proposal for assistance in funding this project was submitted to ERIC Central. See Appendix C.

With the exception of these three items, all of the objectives of the original proposal and request for extension for the California Integrated Network of Educational Information Services have been met. To a large degree due to the activities which SMERC was able to undertake under this project, SMERC is now the largest educational information system directly serving practicing clientele, and is operating in such a way that it can and does continually search for new ways to serve educators throughout the West.

ADDENDUM: REPORT OF THE TRAINING SESSION HELD UNDER AN ADDENDUM TO THE REQUEST FOR EXTENSION OF THE CALIFORNIA INTEGRATED SYSTEM OF EDUCATIONAL INFORMATION SERVICES.

In an addendum to the grant for extension of the Network Project, SMERC was granted funds to perform training of linking agents and information system managers, to be named by NIE. Such training was held from June 25 to June 29, 1973 in the SMERC facilities in Redwood City, California. Invitations to participate were sent to SEA's throughout the United States by NIE request, and, in order to fill the sessions, to new contracting agencies within the SMERC service area. The majority of the participants fell into the latter category. Training in general followed the guide developed cooperatively by Stanford University and SDC Corporation, with a number of variations made by SMERC staff in order to fit the particular needs of the trainees, and in order to maximize the effectiveness of having the training occur in an operating Center.

Evalutation of the training program was done in four ways:

1. All major activities within the program were evaluated using the rating form developed by Stanford-SDC, a copy of which is attached on page 33.
2. Overall comments about the program were elicited from participants.
3. A subsample of participants were asked to make written comments about one of the training sessions (The field trip to Lockheed Computer Center).
4. For one field trip activity, participants were asked to comment on the trip, rather than using the rating form.

On the following pages, each major training module is briefly described, and the results of the evaluation of that module are noted. These are followed by a table showing the overall averages of the ratings for each module, and a summarization of the comments made by participants about the training program as a whole. On the basis of this data, the following conclusions seem to be indicated.

-----The value of field trips, at least in the form and time used in this program, is questionable. A close examination should be made for future such programs in terms of improving preparation of participants before making the trips, closer liaison with the staffs of the facilities to be visited so that they can coordinate their presentations to the needs of the participants, more care in having facilities arranged and presentations planned so participants can get full value from the trips, and close attention to the timing of the trips, both in terms of their place in the total context of the program and the time of day in which they are taken.

-----In both ratings of individual modules and in commenting on the program as a whole, participants frequently noted problems with time. Ratings indicate that even for those modules which were rated very highly, most participants felt that not enough time was given to individual points of information. In overall comments, there was frequent reference to the feeling that the 5 days duration of the program was too long and concentrated. The evaluation as such does not indicate what might be done about this problem, or if the concentrated effort over time interfered with learning. It appears that many participants felt that if the SMERC staff had not created such a relaxed and hospitable atmosphere the time factor would have been more of a negative factor.

-----A superficial comparison of the ratings obtained during this program with those recorded by Stanford/SDC during their validation of their program materials indicates that the SMERC program generally received significantly higher ratings. However, such comparisons are at best questionable given the differences in presentations, scheduling,participants and other factors. If there is any validity to them at all, they may indicate that a training program held in an operating facility, and led by the staff of such a facility, may be better received by participants.

In any case, the results of the ratings and collection of comments indicates that the participants in this training program considered it to be a most successful one, and it is SMERC's intention to use many of the materials and approaches used in the program in future training efforts.

NOTE: The rating form used asked participants to rate each item for each module on a poor-fair-good continuum. Scores were computed using poor=0, fair=1, and good=2. Except for Module 12, N ranged from 17 to 21.

MODULE 1. Present Structure and Future Plans for Information Systems, and "Post-Sputnik" Trends in Education. A presentation by Dr. Frank Mattas, including the film "Future Shock" and open discussion.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.68
Level of material relative to "entry level" of trainees	1.50
Authoritativeness of material	1.60
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	2.00
Coverage of major points within topic	1.71
Allocation of time to each point	1.41
Illustrations or examples	1.65
CONDUCT:	
Arrangements or context for the session	1.83
Choice of trainer(s)	1.94
Effectiveness of presentation(s)	1.71
Appropriate involvement of group in session	1.39
Responsiveness of trainer(s) to questions	1.50
MEAN SCORE - ALL ITEMS	1.65

MODULE 2. In-depth Tour of SMERC as an operating Educational Resources Center. Module directed by Mrs. Marcia Garman and Ms. Sevilla Finley of the SMERC staff.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.95
Level of material relative to "entry level" of trainees	1.68
Authoritativeness of material	2.00
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	1.59
Coverage of major points within topic	1.74
Allocation of time to each point	1.22
Illustrations or examples	1.71
CONDUCT:	
Arrangements or context for the session	1.68
Choice of trainer(s)	1.94
Effectiveness of presentation(s)	1.65
Appropriate involvement of group in session	1.71
Responsiveness of trainer(s) to questions	1.94
MEAN SCORE - ALL ITEMS	1.73

MODULE 3. The Linkage System, the Client System, and the Resource System, a presentation by David Rawnsley of SMERC.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.89
Level of material relative to "entry level" of trainees	1.84
Authoritativeness of material	2.00
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	1.78
Coverage of major points within topic	1.89
Allocation of time to each point	1.71
Illustrations or examples	1.76
CONDUCT:	
Arrangements or context for the session	1.67
Choice of trainer(s)	2.00
Effectiveness of presentation(s)	1.94
Appropriate involvement of group in session	1.65
Responsiveness of trainer(s) to questions	2.00
MEAN SCORE - ALL ITEMS	1.85

MODULE 4. Introduction to Negotiations, including presentation and critique of three negotiation examples by Ms. Sevilla Finley, Ms. Nancy Flynn, and Ms. Leslie Quintero, and Mr. David Rawnsley, all of SMERC.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.95
Level of material relative to "entry level" of trainees	1.90
Authoritativeness of material	1.85
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	1.95
Coverage of major points within topic	1.90
Allocation of time to each point	1.75
Illustrations or examples	1.74
CONDUCT:	
Arrangements or context for the session	1.80
Choice of trainer(s)	2.00
Effectiveness of presentation(s)	1.90
Appropriate involvement of group in session	1.75
Responsiveness of trainer(s) to questions	2.00
MEAN SCORE - ALL ITEMS	1.87

MODULE 5. The Use of the Thesaurus and subject descriptors, an introduction and demonstration by Ms. Leslie Quintero.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.90
Level of material relative to "entry level" of trainees	1.65
Authoritativeness of material	1.89
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	1.74
Coverage of major points within topic	1.80
Allocation of time to each point	1.32
Illustrations or examples	1.89
CONDUCT:	
Arrangements or context for the session	1.78
Choice of trainer(s)	1.95
Effectiveness of presentation(s)	1.74
Appropriate involvement of group in session	1.75
Responsiveness of trainer(s) to questions	1.82
MEAN SCORE - ALL ITEMS	1.77

MODULE 6. Establishing and Organizing the Collection, a presentation by Mrs. Marcia Garman concerning the acquisition, organization, and maintenance of ERIC materials, journals, fugitive information, and special files, with a brief presentation by David Rawnsley on reference materials.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	2.00
Level of material relative to "entry level" of trainees	1.41
Authoritativeness of material	1.81
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	1.56
Coverage of major points within topic	1.50
Allocation of time to each point	1.31
Illustrations or examples	1.76
CONDUCT:	
Arrangements or context for the session	1.59
Choice of trainer(s)	1.94
Effectiveness of presentation(s)	1.76
Appropriate involvement of group in session	1.50
Responsiveness of trainer(s) to questions	1.62
MEAN SCORE - ALL ITEMS	1.64

MODULE 7. Site Visit to Lockheed DIALOG including presentations by Lockheed personnel. (Comments were also elicited from a sub-sample of participants, these comments appearing on the next page.)

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.25
Level of material relative to "entry level" of trainees	0.85
Authoritativeness of material	1.50
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	0.47
Coverage of major points within topic	0.85
Allocation of time to each point	0.55
Illustrations or examples	0.84
CONDUCT:	
Arrangements or context for the session	0.94
Choice of trainer(s)	1.00
Effectiveness of presentation(s)	0.50
Appropriate involvement of group in session	0.55
Responsiveness of trainer(s) to questions	1.17
MEAN SCORE - ALL ITEMS	0.80

COMMENTS ON MODULE 7 (Site Visit to Lockheed DIALOG).

The 7 participants asked to comment on this module stated the following (in summary).

4 felt that holding the presentation in the computer room, which was noisy and crowded, made it impossible to get value from the visit.

3 felt the information was needed as part of the training program, but was not well presented.

3 felt the visit was unnecessary.

2 felt the presentation was too technical.

MODULE 8. Introduction to Computer Use, a demonstration at the terminal at SMERC by Mrs. Katherine Clay of SMERC.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.95
Level of material relative to "entry level" of trainees	1.80
Authoritativeness of material	1.90
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	2.00
Coverage of major points within topic	1.85
Allocation of time to each point	1.70
Illustrations or examples	1.89
CONDUCT:	
Arrangements or context for the session	1.84
Choice of trainer(s)	2.00
Effectiveness of presentation(s)	1.85
Appropriate involvement of group in session	1.70
Responsiveness of trainer(s) to questions	1.88
MEAN SCORE - ALL ITEMS	1.86

MODULE 9. Retrieving ERIC and FIDO Information, an activity in which participants were divided into teams and performed negotiations, "hands-on" searching, and reporting back to clients. Assistance and critiquing were given by SMERC staff. This module used approximately 6 hours of training program time.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.85
Level of material relative to "entry level" of trainees	1.80
Authoritativeness of material	1.83
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	1.85
Coverage of major points within topic	1.65
Allocation of time to each point	1.15
Illustrations or examples	1.81
CONDUCT:	
Arrangements or context for the session	1.84
Choice of trainer(s)	1.95
Effectiveness of presentation(s)	1.83
Appropriate involvement of group in session	1.88
Responsiveness of trainer(s) to questions	1.88
MEAN SCORE - ALL ITEMS	1.77

MODULE 10. "Entry Strategies" to clientele for field agents and project managers, a discussion led by David Rawnsley, attended only by those who would be fulfilling these roles. (n=6)

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.84
Level of material relative to "entry level" of trainees	1.67
Authoritativeness of material	1.83
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	1.83
Coverage of major points within topic	1.67
Allocation of time to each point	1.50
Illustrations or examples	1.83
CONDUCT:	
Arrangements or context for the session	1.40
Choice of trainer(s)	2.00
Effectiveness of presentation(s)	1.67
Appropriate involvement of group in session	1.67
Responsiveness of trainer(s) to questions	2.00
MEAN SCORE - ALL ITEMS	1.74

MODULE 11. Selecting Equipment, a discussion by Dr. Frank Mattas concerning buying, leasing, maintaining and using equipment necessary to information center or linking agent operations.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.88
Level of material relative to "entry level" of trainees	1.66
Authoritativeness of material	1.71
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	1.33
Coverage of major points within topic	1.68
Allocation of time to each point	1.36
Illustrations or examples	1.74
CONDUCT:	
Arrangements or context for the session	1.70
Choice of trainer(s)	1.94
Effectiveness of presentation(s)	1.61
Appropriate involvement of group in session	1.53
Responsiveness of trainer(s) to questions	1.77
MEAN SCORE - ALL ITEMS	1.66

MODULE 12. Site Visit to an Operating ERIC Clearinghouse. A tour of the ERIC Clearinghouse for media and technology, Stanford University.

Since the rating form was not germane to this activity, participants were only asked to write comments about the Module. These comments are summarized as follows. Of the 19 participants who made comments:

9 stated the trip was interesting, worthwhile and relevant to the training program.

7 stated that the trip was interesting or fun, but either not relevant to the training program, or of little value to them in their role.

4 said that the trip should have been taken at a different time (it was taken late in the afternoon of the fourth day of training), since they felt too tired and/or sated with information to get much out of it.

3 were impressed with the building in which the Clearinghouse is housed.

3 made comments complimentary to the Director of the Clearinghouse, who led a question-and-answer period.

MODULE 13. Documenting and Evaluating Service Activities, a discussion by Mrs. Marcia Garman and other SMERC staff on assessing searches, using the search form for documentation purposes, and related concerns.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	2.00
Level of material relative to "entry level" of trainees	1.84
Authoritativeness of material	1.77
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	1.59
Coverage of major points within topic	1.80
Allocation of time to each point	1.63
Illustrations or examples	1.84
CONDUCT:	
Arrangements or context for the session	1.74
Choice of trainer(s)	1.63
Effectiveness of presentation(s)	1.72
Appropriate involvement of group in session	1.55
Responsiveness of trainer(s) to questions	1.76
MEAN SCORE - ALL ITEMS	1.74

Overall Ratings of Training Program. The following averages reflect participant ratings of all modules as reported on the preceding pages, except for module 7 (site visit to Lockheed DIALOG), which was excluded as the only module rated which was not led by SMERC personnel. Participants were also asked to write general comments concerning the 5-day program as a whole. These comments are summarized on the following page.

CONTENT:	MEAN SCORE
Relevance of material to educational dissemination center operations	1.90
Level of material relative to "entry level" of trainees	1.71
Authoritativeness of material	1.84
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	1.75
Coverage of major points within topic	1.77
Allocation of time to each point	1.46
Illustrations or examples	1.78
CONDUCT:	
Arrangements or context for the session	1.74
Choice of trainer(s)	1.93
Effectiveness of presentation(s)	1.77
Appropriate involvement of group in session	1.65
Responsiveness of trainer(s) to questions	1.83
MEAN SCORE - ALL ITEMS	1.76

OVERALL COMMENTS

At the end of the training program, all participants (20) were asked to write their overall impressions of the Program, and any specific ideas they might have for improving. (Since comments had already been elicited concerning the two field trips, participants did not include them in this commentary.) The following is a summary of these overall impressions.

17 stated that the Program was "excellent", "very worthwhile", "very good", "great", or some similar complimentary term.

9 made comments complimentary to the friendliness, hospitality, cooperativeness, etc. of the SMERC staff.

6 felt that the organized social activities for participants and staff were excellent and worthwhile in setting a relaxed tone for the total Program.

5 felt that 5 days extensive training was too long.

3 felt they would have benefitted by spending more time actually doing search related activities.

3 were impressed by the various materials and examples given to the participants.

2 stated that they would have liked to have had a glossary of terms before and during the training.

MODULE 5. Field Visit to Operating Educational Resources Center

	Please circle one:		
CONTENT:			
Relevance of material to educational dissemination center operations	POOR	OK	GOOD
Level of material relative to "entry level" of trainees	POOR	OK	GOOD
Authoritativeness of material	POOR	OK	GOOD
Instructional strategy (e.g., presentation, role playing, exercises, etc.)	POOR	OK	GOOD
Coverage of major points within topic	POOR	OK	GOOD
Allocation of time to each point	POOR	OK	GOOD
Illustrations or examples	POOR	OK	GOOD
Exercises or checklists (if used)	POOR	OK	GOOD
CONDUCT:			
Arrangements or context for the session	POOR	OK	GOOD
Choice of trainer(s)	POOR	OK	GOOD
Effectiveness of presentation(s)	POOR	OK	GOOD
Appropriate involvement of group in session	POOR	OK	GOOD
Administration of exercises, checklists (if used)	POOR	OK	GOOD
Responsiveness of trainer(s) to questions	POOR	OK	GOOD

COMMENT: Does the module have any particular strengths or weaknesses that you would like to mention? (Please use space below.)

APPENDIX A

TITLES OF PUBLICATIONS

MAJOR SMERC PUBLICATIONS

from July 1, 1972-July 31, 1973

Bibliographies, Resource Guides, and other Publications

Innovation and Change (Arizona)	June 1973
Problem Solving/In Service (ACSA)	June 1973
Assessment Strategies	May 1973
Negotiations	April 1973
Career Education	March 1973
Early Childhood Education	February 1973
Decentralization of Decisionmaking	January 1973
Performance Contracts/Educational Vouchers	December 1972
Emotionally Disturbed Children	November 1972
Year Round Schools, revised	October 1972
Teacher Resources Material/Learning Centers	September 1972
Administrator Evaluation	August 1972
Year Round Schools	August 1972
Quinmester Program	March 1973
Brochures for Arizona	December 1972
Fall 1972 FIDO Catalog	November 1972
LaVerne College Catalog	October 1972
School-Community Communication (ACSA)	September 1972
Brochures	July 1972

News Notes

June 1973
April 1973
January 1973
December 1972
October 1972

APPENDIX B

MEMO TO STATE DEPARTMENT

PROPOSED SERVICES FOR THE CALIFORNIA STATE DEPARTMENT OF EDUCATION

by the San Mateo Educational Resources Center
San Mateo Superintendent of Schools Office
Redwood City, California
Dr. Frank Mattas, Director
May, 1973

A. SEARCH SERVICES FOR STATE DEPARTMENT PERSONNEL

SMERC proposes to provide the following services to State Department personnel:

1. Provide ERIC, FIDO, CIJE and other data file searches under the same conditions as for other clientele* for use in situations such as the following:

   When assisting a district or other agency in program development and similar activities

   In providing background information to proposal evaluation teams

   In providing background information to Matrix teams

   In providing background information committees, councils, and similar groups

   When developing proposals, State plans, and similar items for submission to other agencies, such as the Federal government

2. Provide training for appropriate State Department personnel in information system use and information management. An alternative to a massive training program might be to train approximately 15 State Department employees as linking agents, and have all State Department searches be negotiated by these agents.

3. When requested, develop and print Resource Guides, Bibliographies and similar publications in sufficient quantity to serve the publications purpose for use by task forces, committees, or other State Department groups.

4. Provide up to 400 copies of other SMERC publications (approximately 9 per year) for use by State Department personnel.

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* Clients of SMERC may make an unlimited number of search requests. For each search, up to 10 microfiche and 20 pages of photocopy are provided free of charge. Additional microfiche cost 15¢ per "fiche", and 10¢ per photocopied page. When appropriate and requested, a computer printout of abstracts of documents relevant to the search from ERIC and CIJE will also be included. All materials sent by SMERC in response to a search request become the property of the requestor, and need not be returned to SMERC. Cost for these services would be $25,000 per year.

B. DATA STORAGE AND RETRIEVAL

SMERC has a unique document storage, retrieval and delivery system, the use of which is presently concentrated on documents describing research, programs and similar educational information. The use of this storage and retrieval capability could be expanded to include any data or material which:

Has a life span sufficient to make inclusion in a data bank worthwhile (e.g. one year).

Would be sufficiently in demand to make inclusion in a data file cost/effective.

Can be effectively used by clients in microfilm, or is of a nature that parts can be used fully reproduced in hardcopy by the client or SMERC.

Such data could include statistical information, reports, guidelines, standard, formats and any other information which meets the criteria above. In order to implement such a service the following would be required:

Determination by the State Department that it had a sufficient quantity of data to call for such a service (this would include data which is presently in demand and data which may not be used at present because of inaccessibility).

Establishment within SMERC of a separate California file for this data (this is a relatively minor step). This file should be developed in such a way that either a total document or parts of it can be retrieved.

Production of a catalogue for the file.

Establishment of a system for assuring periodic purging and updating of data.

C. CLIENTELE

The best means of supporting such a service would appear to be a single contract with the State Department which would give access to the file for any citizen of California, or any employee of a school district or public university in the state. In this case the service would be above and beyond the services presently provided clients by SMERC through contract with counties and other agencies. Access to the service could be either directly to SMERC or through SMERC's linking agents or satellites.

APPENDIX C

PROPOSAL ON COMPUTERIZING FIDO

San Mateo County Office of Education
EDUCATIONAL RESOURCES CENTER
333 Main Street, Redwood City, CA 94063

A Request for an award from the National Institute for Education (ERIC) to develop a procedure and process a group of locally acquired materials for inclusion in an "on-line" computer program.

San Mateo County Educational Resources Center (SMERC) is currently operating an educational information and dissemination center, providing ERIC, periodical, book and locally collected fugitive materials for educators in an information network throughout California and Arizona. The service includes expanding the acquisitions program of the Center and providing for rapid and effective "on-line" retrieval of ERIC and CIJE materials through the Lockheed DIALOG System. It is proposed that this service be augmented by providing "on-line" retrieval of locally collected materials for all DIALOG "on-line" users and making a magnetic tape reel of those materials available to any other on-line retrieval system interested.

TECHNICAL DISCUSSION

San Mateo County Educational Resources Center wishes to submit a proposal for consideration of an award for unsolicited funds for the development of a procedure and the processing of a group of locally and/or regionally developed resource materials for inclusion in the Lockheed DIALOG on-line retrieval system. The resulting file would be available for access by all Lockheed DIALOG on-line users.

In this proposal we identify those types and kinds of resource materials to be considered and the maximum number to be processed and accessioned and the ultimate benefits to be derived for professional education and decision-makers throughout the DIALOG on-line system.

PROBLEM AND OBJECTIVES

1. During the past four years major studies have been made in creating an ERIC and Current Index to Journals in Education (CIJE) on-line retrieval system. The U.S. Office of Education through N.C.E.C and now the new National Institute for Education has played a major role in developing the on-line system, particularly through the Lockheed DIALOG System. This very success of the on-line system has sharpened the awareness in the state and local educational information agencies of the value of on-line retrieval of all types of fugitive information. More and more it has become apparent that in order to develop more broadly based retrieval systems, fugitive materials and resources not a part of the accessions of ERIC and CIJE must be included within a center's on-line search capabilities. Also, aggressive acquisition of new fugitive materials must be a continual part of a center's activities.

In order to meet these needs, SMERC has had to develop local resource banks independent of those documents cited in R.I.E. and C.I.J.E. Because

of this acquisitions policy, many materials have been acquired and cited in the Center's Fugitive Information Data Organizer (FIDO) Catalogues. This highly useful collection of fugitive materials has become cumbersome to search in a "by hand" manner.

The problem is that at the present time some ten thousand documents pertinent to current awareness searches are being hand searched through the FIDO Catalogues. Also, there is very little in the way of coordinated effort either within states or among the states to share locally accessioned materials. Because existing and planned educational information operations are largely independent efforts, the great potential for cooperative--and, thus, more cost-effective--operations is not being realized. To achieve a stable economic base for the sharing of fugitive information, it is essential that on-line agencies be given the opportunity to review collections from other state and federal agencies without having to acquire the collections on their own. Thus far, the necessary broad base for these on-line services has not been developed. SMERC is in an excellent position to develop the capacity and provide some of the rapid delivery system.

SMERC feels that the most desirable model for this activity is to prepare and place on-line in the Lockheed DIALOG Computer a minimum of 2500 fugitive documents (with the possibility of escalation to 7500) that would have interest to other state and local agencies using the DIALOG System. The implementation of this model will require the selection of the most pertinent documents, accessioning by ERIC descriptors, key punching to the requirements of Lockheed DIALOG and the procedures necessary by Lockheed to actually place "on-line".

2. Objectives - SMERC, in close cooperation with other information agency personnel, will work to promote the development of an "on-line" collection of fugitive materials. The specific objectives to be achieved

by the SMERC Center in providing this "on-line" collection are as follows:

Objective 1. Given the present SMERC FIDO Catalogues, and other fugitive materials, SMERC staff members will identify at least 2500 such materials as worthy of accession in the DIALOG computer for use by other state and local agencies.

Objective 2. Given 2500 or more fugitive documents SMERC staff members will accession and process said documents in a manner that is compatible with ERIC procedures, i.e. ERIC Thesaurus Descriptors, and format etc. and include a one to three line summary of 20 or more words describing the contents of each document. All documents cited will be placed in microfiche format for dissemination upon request. "Fiche" will be reproduced at SMERC at a cost of 25¢ per fiche.

Objective 3. Given 2500 or more properly accessioned fugitive documents by ERIC format, San Mateo County Office of Education Electronic Data Processing personnel will "key punch" to Lockheed DIALOG specifications for accessioning into the DIALOG System.

Objective 4. Given 2500 or more EDP "key punched" documents SMERC personnel will deliver all such materials to Lockheed DIALOG at Sunnyvale, California for inclusion in the on-line system as a new and separate on-line file available to all DIALOG "on-line" users.

DESCRIPTION OF ACTIVITIES

SMERC will provide the staff and initial fugitive documents to carry out the objectives outlined in the preceding section. The proposal will

cover a period of approximately 30 to 45 days, under the direction of Frank Mattas. Frank Mattas is responsible for the initial development and the continuing operation of the San Mateo County Educational Resources Center. In addition to providing technical direction of the proposal, he will be responsible for the delivery of the processed documents to Lockheed DIALOG (Dr. Roger Summit) of either key punched index cards or a mini reel of magnetic tape. A short report describing the project results will be forwarded.

COST ESTIMATES

Project Director: Frank W. Mattas Institution: San Mateo County Board of Education

Proposed Duration: 30-45 days Starting date: Open

A. Direct Costs

It is estimated that a cost of $2.80 per document will be required. Thus, for 2500 documents the total cost would be $7,000. This breaks down along the lines of the objectives as follows:

Objective 1. Scan 10,000 documents by research assistant staff members for those 2500 plus documents best meeting the requirements for inclusion in the data base. It is estimated that 200 man hours @ $5.00 per hour would be required. Total cost = $1,000.00.

Objective 2. SMERC staff will process 2500 plus documents to R.I.E. format. This would include accession number; author; title; institution; publishing date; pages; 5 descriptors; and a summary of 20 to 25 words. It is estimated that 800 hours would be required @ $5.00 per hour. Total cost = $4,000.

Objective 3. The San Mateo County EDP Center would key punch 2500 documents for $1,000.00. Total cost = $1,000.00.

Objective 4. SMERC costs by Lockheed DIALOG to place 2500 documents "on-line" would be $1,000.00. Total cost = $1,000.00.

APPENDIX D

SMERC OBJECTIVES 1973-74

EDUCATIONAL RESOURCES CENTER DIVISION

1973-74 School Year

PROGRAM OBJECTIVE: 1.0 Development and Maintenance of Resource Banks

Develop and maintain resource banks relevant to education in such a way that 99% of all requests for information made to the Center will be answerable from the banks.

REFERRENT GOAL(S)[1/]:

1-A,B,C
2-A,C
4-A

ACTIVITIES	EVALUATION
1.1 Continue to update the Fugitive Information Data Organizer.	1.1 10,000 documents to be accessioned.
1.2 Expansion of Data Base:	1.2 a) Investigate the usefulness to clientele of other collections as available, such as NTIS, and develop access to such collections when appropriate, as indicated by the documentation of examination of alternative files; b) Investigating and reporting by March 1973 on the feasibility and desirability of providing computer indexing and accessibility for FIDO, as indicated by the existence of the report; c) Development of special files as included in contracts, as evidenced by the existence of the files and expressed contractee satisfaction with them.
1.3 File Maintenance:	1.3 Data bank files will be maintained in such a way that it will be necessary to reorder no more than 25 titles during the year due to loss of microfiche.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

EDUCATIONAL RESOURCES CENTER DIVISION 1973-74 School Year

PROGRAM OBJECTIVE: 2.0 Access to Data Bank

To continue to provide rapid and effective information services to educators who are clients of SMERC and its satellites.

REFERRENT GOAL(S)[1]:

1-A,B,C
2-A,C
4-A

ACTIVITIES	EVALUATION
2.1 Respond to requests for information through the process of negotiation, retrieval, transformation and communication with rapid and relevant responses as indicated by:	2.1 a) Providing completed searches to all clientele within the time frames established for each type of search in at least 95% of requests; b) Completed searches (other than reproduction) shall be of high quality as measured by the following criteria: .....Searches will include items or reference to items judged to be of importance in the area searched according to the judgement of persons knowledgeable in the field. .....90% of a random sample of those receiving searches will rate some information received as relevant with the exception of one or two items. .....33% will rate information received as all relevant; c) Search processes will be completed correctly and promptly as indicated by the following criteria: .....95% of requests will be found to be correctly prepared for mailing upon review by the Research Analyst or other staff member after completion of the search by the ERA; d) The number of requests for information made by clientele will be equal to or above the number made in a comparable period the preceding year for each major clientele group (contractee); e) 50% of searches will result in at least one other search request (not necessarily in the same search area) emanating from the

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

EDUCATIONAL RESOURCES CENTER DIVISION

PROGRAM OBJECTIVE: 2.0 Access to Data Bank

REFERRENT GOAL(S)[1/]:

ACTIVITIES	EVALUATION
	2.1 same institution (school, district office) as the first request within 6 months time; f) Given a follow-up of a randomly selected set of search requestors: .....75% will indicate that the information was used in connection with some specific action, ...75% will indicate that the search included information which was relevant and new to them.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

EDUCATIONAL RESOURCES CENTER DIVISION

PROGRAM OBJECTIVE: 3.0 Publications and Dissemination

SMERC will develop, publish and distribute News Notes, Bibliographies, State-of-the-Art Paper and Catalogues, and disseminate information about SMERC in order to increase the accessibility of the data bank to the clientele.

REFERRENT GOAL(S)[1/]:

1-A,B,C
2-A,C
4-A

ACTIVITIES	EVALUATION
3.1 Publications:	3.1 a) A minimum of one publication will be produced per month, including publications requested by client institutions; b) All publications will be distributed to all client institutions at the (minimal) rate of 2 copies per client institution plus a 10% overage delivered to the contracting agent; c) SMERC will complete all special publications included in contracts as contracted, including considerations of deadlines and numbers of copies, to the satisfaction of the contractee. In San Mateo County distribution shall be to each superintendent, principal, librarian and curriculum coordinator or director; d) In a random sample of persons receiving such publications, 90% will acknowledge receipt of same; 75% will have found them of some use; 50% will state that they always read the News Notes and bulletins; 25% will state that they find them to be of great value.
3.2 Dissemination of Information about SMERC:	3.2 SMERC will be a known information source to clientele as indicated by: a) .....75% of a randomly selected clientele indicating they are aware of the service, ...25% of clientele (random sample) indicating that they have used the service directly or have made use

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

EDUCATIONAL RESOURCES CENTER DIVISION

PROGRAM OBJECTIVE: 3.0 Publications and Dissemination

REFERRENT GOAL(S)[1/]:

ACTIVITIES	EVALUATION
	3.2 of information which they were aware was provided by the Service; b) A minimum of 40 requests for introductory presentations concerning the Center will be received and fulfilled; c) A minimum of 10 requests for presentations on information management will be made and fulfilled; d) No individual or group requesting information concerning SMERC will be denied such information due to lack of staff time to fulfill such requests as indicated by documentation of information requests.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

EDUCATIONAL RESOURCES CENTER DIVISION

PROGRAM OBJECTIVE: 4.0 Training

Provide training for staff, satellite linking agents, and persons from agencies in the process of establishing educational information systems, according to the needs of each of these groups.

REFERRENT GOAL(S)[1/]:

6-A,B

ACTIVITIES	EVALUATION
4.1 Staff Training:	4.1 All SMERC staff will receive the equivalent of at least one hour per week training in relation to a) areas of educational content determined by examination of search requests and requests for assistance in searches by ERAs; b) Training in information management, including the operation of the information center; c) At least one staff member will be in attendance at least 90% of all in-service training programs and carried out by the San Mateo County Office.
4.2 Linking Agent Training:	4.2 a) All persons assigned the linking agent function will receive training in this role using the seminar outline presently used by SMERC. 100% of those trained will meet the criteria established for success in the seminar; b) Persons presently acting as linking agents will receive futher training in information management techniques. At least 35% of present linking agents will receive such training, and 100% of those particpating will reach the objectives established for this training.
4.3 Training other Information Systems Personnel:	4.3 SMERC will complete the contract for training these persons with NIE according to the terms and objectives of the grant contracts.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

EDUCATIONAL RESOURCES CENTER DIVISION

PROGRAM OBJECTIVE: 5.0 Management Support

SMERC will be so managed that all of the program objectives enumerated above, and the activity objectives listed below will be met.

REFERRENT GOAL(S)[1/]: 5-A,B,C
6-A,B

ACTIVITIES	EVALUATION
5.1 Maintencance of clientele:	5.1 The number of clientele, as measured by the ADA served by client institutions, will at least remain at the 1971,1972 level.
5.2 Liaison and Development of Satellites:	5.2 Continue to support the development of the Northern California, SCAIN and Tulare County satellites in such a way that search requests will continue to be received and processed at (minimally) the same rate and within the same turn-over time as existed last year.
5.3 Liaison with County Office:	5.3 Continued participation, including attendance at meetings (90%) and completion of required tasks (100%), in the Basic Planning operation of the County Office; 100% attendance and participation in meetings by appropriate SMERC personnel, as called by appropriate County Office personnel.
5.4 Liaison with the State Department of Education:	5.4 SMERC will, if so requested, provide staff assistance and leadership, liaison, planning assistance, and prototype training to the State Department, including assistance in seeking federal support for information systems development, as indicated by documentation of such activities.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

EDUCATIONAL RESOURCES CENTER DIVISION

PROGRAM OBJECTIVE: 5.0 Management Support

REFERRENT GOAL(S)[1/]:

ACTIVITIES	EVALUATION
5.5 Liaison with Federal Agencies and Other Educational Information Systems:	5.5 Appropriate staff will attend at least 75% of national conferences called by NIE or other appropriate agencies dealing with the development and operation of educational information systems.
5.6 Development of MBO/R Management Systems:	5.6 Development of a MBO/R model for information and service management, including implementation and validation of some aspects of the model, as documented by a report submitted to NIE and the County Office by 1 July 1973 and further reports during 1973-74.
5.7 Provision of Personnel:	5.7 At no time will there be a period of more than 4 weeks in which there will not be trained ERA staff in a proportion of one ERA per (approximately) 150,000 ADA served by contracting agencies (training period = 20 days).
5.8 Personnel Evaluation:	5.8 a) All certificated staff will be evaluated according to the policies adopted by the County Board of Education as indicated by completion and documentation of all steps required by these policies; b) All classified personnel will be evaluated according to the policies adopted by the County Board of Education

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

EDUCATIONAL RESOURCES CENTER DIVISION

PROGRAM OBJECTIVE: 5.0 Management Support

REFERRENT GOAL(S)[1/]:

ACTIVITIES	EVALUATION
	5.8 as indicated by completion and documentation of all steps required by these policies; c) All personnel will meet at least once with their assigned supervisor or the Director for the purpose of reviewing performance and planning for personnel development, as evidenced by documentation of such meetings.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

LIBRARY - ERC DIVISION

PROGRAM OBJECTIVE: 1.0 Development and Maintenance of Collection

Develop and maintain resource banks relevant to education in such a way that 90% of all requests for information made to the Library will be answerable.

REFERRENT GOAL(S)[1/]:

1-A,B,C
2-A,C
4-A

ACTIVITIES	EVALUATION
1.1 Accession an appropriate quantity of books, pamphlets, and non-print educational materials as limited by budget and personnel.	1.1 a) Acquisition budget will be expended throughout the fiscal year; b) Where information appropriate to a search is not available in the library, sources will be contacted which will have the appropriate information; c) When requests are made for specific documents, 74% of the time the specific document will be available if the request is within the scope of the library.
1.2 Maintain a liaison with other libraries and information sources.	1.2 When a need for inter-library loan exists, in 100% of the cases the staff will know where and how to request such materials and in 80% of all cases the requestee will provide the appropriate materials.
1.3 Collection Maintenance.	1.3 The collection will be maintained in such a way that the location of any catalogued materials will be ascertainable in 98% of all cases.
1.4 Maintain a file of education-related journals.	1.4 In any year no more than 10% of a randomly selected set of searches will include reference to a journal regularly indexed in Education Index or the Current Index to Journals in Education, dated January 1971 or later which is not available.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

LIBARY - EDUCATIONAL RESOURCES CENTER DIVISION

PROGRAM OBJECTIVE: 2.0 Access to Collection.

To continue to provide rapid and effective information services to educators in San Mateo County.

REFERRENT GOAL(S)[1/]: 1-A,B,C
2-A,C
4-A

ACTIVITIES	EVALUATION
2.1 Respond to requests for information through the process of negotiation, retrieval, transformation and communication with rapid and relevant responses as indicated by:	2.1 a) Providing completed searches to all clientele within the time frames established for each type of search in at least 95% of requests; b) Completed searches shall be of high quality as measured by the following criteria: .....Searches will include items or reference to items judged to be of importance in the area searched according to the judgement of persons knowledgeable in the field, ...90% of a random sample of those receiving searches will rate some information received as relevant to the request made, ...66% will rate information as relevant with the exception of one or two items, ...33% will rate information received as all relevannt; c) Search processes will be completed correctly and promptly as indicated by the following criteria: .....95% of requests will be found to be correctly prepared for transmission upon review by the Library Technician, after completion of the search; d) The number of requests for information made by clientele will be equal to or above the number made in a comparable period the preceding year.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

LIBRARY - ERC DIVISION

PROGRAM OBJECTIVE: 3.0 Dissemination

REFERRENT GOAL(S)[1/]:
1-A,B,C
2-A,C
4-A

ACTIVITIES	EVALUATION
3.1 Dissemination of information about the library.	3.1 The Library will be a known information source to clientele as indicated by: a) .....50% of a randomly selected clientele indicating they are aware of the service, ...25% of clientele (random sample) indicating that they have used the service directly or have made use of information which they were aware was provided by the Service; b) requests for introductory presentations concerning the Center will be received and fulfilled; c) No individual or group requesting information concerning SMERC will be denied such information due to lack of staff time to fulfill such requests as indicated by documentation of information requests.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

LIBRARY - ERC DIVISION

PROGRAM OBJECTIVE: 4.0 Management Support

The professional library will be so managed that all of the program objectives enumerated above, and the activity objectives listed below will be met.

REFERRENT GOAL(S)[1]: 5-A,B,C
6-A,B

ACTIVITIES	EVALUATION
4.1 Personnel Evaluation.	4.1 a) All certificated staff will be evaluated according to the policies adopted by the County Board of Education as indicated by completion and documentation of all steps required by these policies; b) All classified personnel will be evaluated according to the policies adopted by the County Board of Education as indicated by completion and documentation of all steps required by these policies; c) All personnel will meet at least once with their assigned supervisor or the Director for the purpose of reviewing performance and planning for personnel development, as evidenced by documentation of such meetings.
4.2 Develop a plan for a printed book catalog of library holdings.	4.2 a) By April 1, 1973, a formal plan will have been submitted for the compilation and printing of a book catalog; b) If budgeted, work will commence on implementing the catalog by August 15, 1973.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

LIBRARY - ERC DIVISION

PROGRAM OBJECTIVE: 5.0 Support of State Operations

Coordinate activities of the county office personnel and district personnel as they relate to the State Department of Education, within the limit of being appropriate to the Library.

REFERRENT GOAL(S)[1/]:

5-A,B,C,D

ACTIVITIES	EVALUATION
5.1 Maintain appropriate documents, materials, and information relative to state adopted instructional materials.	5.1 a) Documents requested will be forwarded within 5 days in 100% of all cases, if printed; b) Requests for information will be answered within two days, vacations permitting; c) Adopted state textbooks and proposed adoptions will be available in the ERC at all times; d) Other adopted state educational materials and proposed materials will be requested from the publishers and will be available in the ERC at all times if received.
5.2 Maintain appropriate documents and information relative to the Elementary and Secondary Education Act, Title II.	5.2 a) Appropriate documents will be forwarded within 5 days in 100% of all cases, if printed; b) Requests for information will be answered within two days, vacations permitting; c) District personnel will find in 75% of all cases that consultation provided was of material benefit; d) At least two districts will request consultation assistance in preparing Phase 2 applications.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

LIBRARY - ERC DIVISION

PROGRAM OBJECTIVE: 6.0 Support of Professional Organizations

Provide appropriate support for professional organizations, both subject and responsibility oriented.

REFERRENT GOAL(S)[1/]:

6-A

ACTIVITIES	EVALUATION
6.1 Credentialed personnel will maintain membership in and be active in appropriate organizations.	6.1 a) Center personnel will participate in 75% of all appropriate meetings held in San Mateo County; b) Center personnel will be asked to serve on appropriate committees and task forces; c) Center personnel will provide services to the organizations in 70% of all cases, if feasible and appropriate; d) Center personnel will participate in 50% of all meetings held in California of organizations appropriate to the Library.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

1973-74 School Year

LIBRARY - ERC DIVISION

PROGRAM OBJECTIVE: 7.0 Consultation and Assistance

Provide consultation and assistance to appropriate County Office and District personnel relative to library services.

REFERRENT GOAL(S)[1/]: 1-A,B

ACTIVITIES	EVALUATION
7.1 Provide consultation as requested.	7.1 a) Requests will be made for information from 50% of the districts in San Mateo County; b) Of a random sample of librarians requesting information, 75% will state that the information provided was of value to them; c) Of a random sample of other district personnel requesting information, 50% will state that the information was of value to them.
7.2 Visit school libraries.	7.2 a) 20% of the schools within the county will be visited annually; b) Of a random sample of the persons visited, 50% will state that the visit(s) was of value.

1/ Referrent Goal(s) refer to those adopted by the San Mateo County Office of Education; thus, P.S. 1B means Philosophy Statement 1, Goal B.

APPENDIX E

ARIZONA EVALUATION

ASSESSMENT OF SERVICES PURSUANT TO THE CONTRACT

FOR SERVICES BETWEEN SMERC AND AEIS

DURING THE SCHOOL YEAR 1972-73

The period covered by this report was from October 1, 1972 to May 1, 1973. (The months of May and June 1973 are covered by the contract, but not covered by this report). During this period a total of 624 searches were performed under the contract, of which 158 were reproduction searches (i.e. searches in which the requestor ordered specific documents), 147 were computer print-outs, and 319 were in-depth searches. During most of the period, AEIS was serving clientele including approximately 93,000 ADA, plus the faculty of the ASU College of Education. During the Spring, I understand AEIS began serving a number of relatively small districts, although I don't know the exact number of ADA involved.

EVALUATION:

In April 1973, an evaluation of services to AEIS clientele by SMERC was undertaken, using the following methodology:

1. A random sample of computer and in-depth searces done during January, February, and March was selected by taking every 5th search from the files until 50 searches were included.

2. A brief questionnaire and request for comments was sent directly

to the person requesting the search under my name (a copy of this questionnaire is attached). The date and subject of the request was included on the form, since a number of clients had made multiple requests, and we were primarily interested in their reactions to a specific search.

3. A return envelope was included with each questionnaire.

4. A copy of the questionnaire was sent to Dr. King of AEIS for his review.

Results Were As Follows:

A. Of the 50 questionnaires mailed, 32 (64%) were returned prior to June 1, 1973.* Two of these returns were not included in the data below, one being from the head of a committee whose group had not yet used the information and therefore had no reactions to it, and the other being a search inadvertantly included in the evaluation in which the requestor knowingly asked for information which he suspected SMERC did not have, and received a note that that was in fact the case.

B. The major purposes of the evaluation were to gain an overall impression of client reaction to the service, and to uncover specific problems or indications which might lead us to ways of improving the service.

C. The following results were gained for each question on the questionnaire. The comments following are in part based on results expected according to a set of simple hypotheses developed by the author at the time of development of the questionnaire.

1. Relevance

Choice**	Responses
a. all relevant	9
b. relevant with the exception of one or two items	12
c. included only one or two relevant items	7
d. was not relevant	2

* Since SMERC serves AEIS clientele indirectly (i.e. through AEIS and district coordinators) we did not have addresses for specific clientele except in terms of schools and districts. A number of educated guesses and vague addresses were used by necessity in mailing questionnaires, and at least 6 questionnaires were returned by the Postal Service because of inadequate address. Second attempts were made in these cases, but no attempt was made to find out if these were successful, and there is no reason to believe that any bias resulted from this difficulty.

** Choices for all questions are paraphrased for convenience in this report. See the questionnaire appended for full statements of the choices.

It was expected, given the nature of the negotiation and search process, that most replies would be in the second (b) form. More than expected in fact replied that all information was relevant. However, a few more than were expected replied in the last two categories, which basically are negative responses. Lack of relevance can either be a problem of inadequacy of the collection or a problem in negotiation. An examination of the searches involved indicate that the latter is the case. An example is one of the questionnaires which was marked "not relevant." The search negotiated centered around the concept of curriculum analysis in special education. The note appended to the questionnaire indicated that the requestor was interested in ways of evaluating special education programs (about which there is considerable information in the collection). Further discussion about negotiation is included later in this report.

The other questionnaire which was marked "not relevant" is of interest, too, from the standpoint of communications within the total system. The request was for information about the geography of Baja California. The request realistically does not fall within the range of information with which SMERC deals, and it was the understanding of the negotiators that everyone assumed any search "hits" would be pure luck. The response to the request included some related information, and some references to other sources of information. Therefore, the reply of "not relevant" would be expected. However, as a point of interest, personnel at least twice were complimented by the coordinator of the district from which the request emanated for coming up with anything.

2. Uniqueness of Information

Choice	Responses
a. almost all new	7
b. divided between new and information already available	20
c. not new information	3

Since the Information System has no way of knowing what information is already available to the requestor, and since one can assume that many requestors know something (that is, have some information) about the area in which they make a search request, it is no surprise that 2/3rds of the responses fell into the second category. Overall, responses to this question are highly positive. Further analysis of the searches responding "not new" indicate that one was in an area of cybernetics (machine analysis of subjective content) which is realistically outside of the realm of an education-oriented system, and the other two (one of which was described in the comments on question 1) appear to be problems of negotiation.

3. Use

Choice	Responses*
a. myself, for personal and professional growth	10
b. myself, for use in planning, etc.	17
c. a committee or team	8
d. other	2

This question was included to ascertain whether there were any categories of unusual use or tendencies which might effect the search and delivery process. Although analysis

*A number of respondents gave multiple answers.

of responses by source of request (Elementary Schools, High Schools, University faculty) revealed no tendencies in terms of the other questions on the questionnaire (with the exception of Question 5) almost 1/2 of the high school level respondents indicated that the information was being used by a committee or team, while only 1/5 of the Elementary School level responses and 1/9 of the University faculty responses were so marked. This is perhaps due to the departmental structure of most high schools, but it is unclear at this time what special consideration in search and delivery is called for. Perhaps if future evaluations or experience reinforce this finding, it would be worthwhile to consider some special approach to departmental search requests.

4. Usefulness

Choice	Responses
a. very useful	16
b. useful, except----	7
c. not very useful because----	7

Every information service would like to think that all the information it dispenses is very useful, but this is asking for more than is possible. However, since almost half of the respondents felt the information they received was at least compromised in its usefulness, it was felt to be necessary to analyze these 14 responses. Of those marked "useful, except----", (1) 3 made no indication of what the exception was (but one indicated in a comment that he had not defined his question well and was pleased enough to use the service again); (2) 2 indicated that they liked what they got, but could have used more information; (3) 1 indicated that too much material was received, and had too much to get the "meat"; (4) 1 indicated that the information arrived too late to be useful (see Question 5) but was generally positive about the information received.

Numbers 2 and 3 do not seem to me to be serious difficulties within the context of the total system, given the relatively small number of clients so responding. Number 4 is discussed under Question 5 below. If we assume that those included in Number 1 represent basically negative responses (and they in fact may not) we are still left with a relatively small group, and I would conclude that this total set of responses does not represent an indication of a serious problem, particularly with the collection's usefulness or the degree to which search processes or personnel find useful information.

Of those marked "not very useful because----" (1) 3 appeared, from the comments made, to be misunderstandings in negotiation (one of which took responsibility himself for the confusion and was very complimentary to the service); (2) 2 appear to be searches outside of the field covered by the SMERC collection (the Baja California and Cybernetics searches described in comments on Question 1); and (3) 2 were requests for information within the field of education for which the Research Assistant could not find the specific information requested (behavioral objectives for a Food course and plans for Math Centers/Jr. High) and sent related materials along with an explanation about the unavailability of the information.

The questions of problems in negotiations will be discussed later in this report. Number 1 and Number 2 are indicative of a minor problem we had early in the year (both of these searches were made early in the period covered by the sample) in which a number of clients did not understand the limitations of the SMERC collection. This problem seems to have been considerably ameliorated, particularly since the meeting of district coordinators early this spring which I attended. However, if there appears to be enough demand from all of SMERC's contracting agencies, we might want to consider

attempting to develop some sort of working arrangement with the many other specialized information systems which exist nationally, so that we could refer clients to them. As an aside, the search in the area of Cybernetics was run through the NTIS file, with no hits, and inquiries were made at the Stanford University Artificial Intelligence Laboratory where, to be honest about it, our contacts were rather disdainful of the question (although most willing to try to help).

Number 3 presents a more difficult problem, but one for which there seems no immediate solution. If we find many instances of this type of inability to respond to a request, it might be worthwhile to establish an internal system for putting such searches in a "hold" category, explaining this to the client, and responding when information does become available (for example, it is likely that by now our objectives file does contain some relevant items). There are two objections to this solution:

- by the time information becomes available, it may be too late to be of use to the client

- there may not be enough instances in which the situation occurs to make a systematic solution "cost-effective"

It appears to me that this closer analysis of the instances in which responses which might appear to be negative to the question of usefulness ameliorates to a certain degree the impression given by the data on responses alone. Those breakdowns which do exist appear more often than not to be traceable to communications, both in terms of client understanding of the capabilities of SMERC and AEIS, and in terms of negotiation of searches. The latter point is covered elsewhere. The former I feel is being overcome as the clientele become more familiar with the system, and the heavy search load and generally favorable comments on the service would indicate that whatever misunderstandings might exist are not having an adverse effect.

5. Timing

Choice	Responses
a. about when expected	16
b. too late to be useful	3
c. later than expected, but in time to be useful	11
d. earlier than expected*	2

In view of the concern expressed by Dr. King a number of times during the year concerning the lateness of searches, the results of this question are pleasantly positive (particularly choice d). The relatively large number of responses in choice c was predictable; a similar finding was made in Sieber's study of the USOE-NIE Linking Agent pilot project. Whether or not choice c is a negative comment depends upon the frame of reference used. From the standpoint of information use it is at worst neutral, but may represent some problem in terms of public relations. Whether or not this is the case cannot be determined from the available data.

If we assume on the basis of AEIS information, that there is some problem of undetermined degree in regard to late searches, this problem may lie in one of the following two causes:

* Not included on the original questionnaire.

A. Investigation by Ms. Goodyear during April indicated that searches mailed to Arizona went from SMERC to the County Office mailroom, then to the County Manager's Office mailing facility, then to the Redwood City Post Office, and finally to the San Francisco Post Office before they headed south. I would not be surprised if something similar happens when searches arrive in Phoenix or Tempe. As you may remember, we had decided to short cut this system by doing our own stamping and mailing, but I did not implement this because the problem of complaints about lateness seemed to ameliorate as the Spring went on. An investigation of mailing practices and time-lines by AEIS in its area would be most useful.

B. Analysis of the data received in the evaluation by school level showed that 58% of the searches sent to elementary schools resulted in a response of lateness. This rate is over 20% higher than those for college or high school faculty. Since we make no distinction between such levels in scheduling searches, this figure would indicate some difficulty in the delivery system after searches leave SMERC. I would guess that this hang-up occurs after searches are delivered to District Coordinators by AEIS and is based on the fact of there being more schools to deliver things to in most elementary districts compared to the other levels. In any case, AEIS may be interested in trying to pinpoint the difficulty, and taking whatever action is appropriate.

6. Research Assistant Notes

Choice	Responses
a. no note	5
b. didn't notice	3
c. informative	18
d. not informative	4

Although these results seem generally positive, two observations need to be made: (1) Choices a and b can be taken as the same; i.e., any number of those in Choice a may have in fact received a note but didn't see it and therefore concluded that there was none. It is probably worthwhile to consider redesigning the form which is included with search results in order to give the RA's note more prominence, since in many cases it is too important a communication about the search to risk the possibility that almost 1/3 of those receiving searches do not see it. (2) At least two of the searches in Choice d are ones which we have previously analyzed as being outside the range of the SMERC collection. In these cases the choice (in full) "I read the note, but it didn't tell me much about the search" is ambiguous at best.

7. Bibliographies and Resource Guides

Choice	Responses
a. have not seen	7
b. seen but not used	13
c. have used	10

This question was asked in order to assure that the majority of clientele had at least seen some of our publications, and to ascertain whether or not there was any pattern to availability or unavailability. The results would indicate that the

availability of such documents is satisfactory, although one can't help but wonder about the fact that some 23% of the respondents who knew about the service (at least so far as to submit a search request through it) had never seen one of these numerous publications. However, analysis of the results by institution level indicate that there is no tendency for ignorance concerning these publications to center in one type of institution or another.

COMMENTS

All respondents were asked to make comments about the search in question, any other searches they may have requested, or about the service in general. As a result:

10 made no comment (8 out of these 10 were respondents who gave positive responses to the questions concerning relevance and usefulness)

14 made comments laudatory of the service - some examples:
"This is an outstanding service which saved me hours of time--"
"Very pleased with it"
"The material has been very helpful in our --- curriculum planning"
"Most successful and useful"
"May I take this opportunity to encourage others to utilize the services that you offer. I am sure they will find them as priceless as I did"
"--- of the utmost importance to any school district. Thanks for your help"
"I learned from this search request --- how to ask pertinent questions --- I plan to use the service again"

6 made explanatory comments about their previous responses, or asked questions about the service. Some examples:
"Search could have really been helpful if the objectives had been stated in complete form"
"I would like to see the materials contained by the Center expanded to include the scientific disciplines ---"
"How do you index your materials? Could you send an index to districts or individuals?"

No one made comments indicating that the service was of little or no use. Four of the 6 comments noted immediately above, and 2 or 3 of the 14 positive comments indicated that there was some breakdown in negotiation of searches. I will conclude this report with some considerations on this topic.

NEGOTIATION

Some facts about how the SMERC-AEIS system operated during the period covered by this report should be taken into account when considering possible problems concerning negotiations.

1. The typical search request from a school staff member was communicated from the requestor to the district coordinator, thence to AEIS, and from there to SMERC. Thus there are two "negotiations" between the requestor and the SMERC Research Assistant.

2. In most cases the RA does not have contact with the requestor either before or after the search is completed except through the note which is usually appended to the search. Direct renegotiation, if there appears to be a problem, has been too cumbersome,

considering the distance and the number of the people involved, to be used.

3. All negotiation between AEIS and SMERC is done by telephone.

4. AEIS staff received a 2 day training workshop at Redwood City, but this could not be considered extensive training. (It should be noted that, given this minimal training, and the fact that two staff members responsible for negotiation at AEIS are relatively inexperienced in the field of education, they have to all appearances done an excellent job and deserve much credit for having done so, and for the success of the service.) Some District Coordinators received about 6 hours of introductory training from the AEIS staff and myself, and may have received more as a result of AEIS activities of which I am unaware, but certainly cannot be considered trained negotiators.

Of these considerations, it is my judgement that items 1 and 3 are of most concern. In reference to item 3, AEIS has been considering acquiring a MTST capability for some time. If this step is taken, many of the problems of rushing through long telephone conversations, poor connections, and all the other disturbances to which long distance telephoning is susceptible will be ameliorated, if not solved. There are many indications that getting the MTST would also represent a cost savings for AEIS. If for some reason this step cannot be taken, I would suggest that appropriate people from SMERC and AEIS get together to see if ways and means can be devised to relieve the present dependency on the telephone.

Item 1 presents a more difficult problem. There are undoubtedly good reasons for AEIS to have established and used the system as it is presently formed, and it would be inappropriate for me to comment on it. On the assumption that these good reasons still exist, and the system of coordinators etc. will continue, the key to improving the process of negotiation would seem to be increasing the skill of the district coordinators as negotiators. Short of bringing all the coordinators to Redwood City for training, which neither AEIS, SMERC nor the individual districts can afford, I think between AEIS staff and ours we could devise some means for helping the coordinators in this function within the time and cost constraints of the contract. Whatever means might be arrived at, I think this is an area in which we should undertake cooperative planning of a specific program, rather than relying on one or the other of us to be active on an "ad hoc" basis.

It is my strong impression that, although we thought item 2 would be a problem, SMERC staff and AEIS personnel have been able to handle renegotiation problems adequately, now that they have gotten to know each other better. I am willing to be corrected on this point, and on my impression that item 4 is also becoming less and less a problem as the AEIS people gain experience. However, we should be alert to any opportunity that may arise to provide more training to any and all staff involved, which certainly includes anyone assigned to assist in servicing the contract at this end.

As a conclusion to this report, I would like to reiterate that, in spite of a number of problems which may have appeared to be major at the time, but generally turned out to be relatively minor, the facts of the case as indicated both by demand for searches and the evaluation detailed above, lead to the conclusion that AEIS and SMERC provided a very valuable resource to educators in Arizona and did so in more than adequate manner.

David E. Rawnsley
June 14, 1973

EDUCATIONAL RESOURCES CENTER

333 Main Street - Redwood City, California 94063 - 415 364-5600

F. Curtis May
Coordinating Librarian

Katherine Clay
Information Specialist

Marcia B. Garman
Research Supervisor

FRANK W. MATTAS
Administrative Director

TO:

FROM: David E. Rawnsley, Consultant
San Mateo Educational Resources Center

SUBJECT: Assessment of SMERC Services

As you know, the San Mateo Educational Resources Center, through a contract with the Arizona Educational Information System, provides searches for documents in education for Arizona educators. We would very much like to elicit your cooperation in assessing this service by asking you to fill out the form below and return it to us in the enclosed envelope. Since we are using a random sample of those who have requested and received searches in the past few months, it is most important to our assessment that we get a high percentage of returns. Therefore, we would be most grateful if you would take a few minutes and fill out the questionnaire as soon as possible.

According to our records, in _____ you requested information on _____ _____ and received in reply: _____ microfiche

_____ photocopies

_____ computer print-out

Would you answer the following questions about this search (please answer for this search only; if you requested other searches, we would welcome comments on them in the "comment" section at the end of the questionnaire). We do not expect you to go back and look at the documents you received. Please answer from the best of your memory.

Check the appropriate response.

RELEVANCE

1. The material I received was:

_____ all relevant

_____ relevant with exception of one or two items

_____ included only one or two relevant items

_____ was not relevant

UNIQUENESS OF INFORMATION

2. The material I received was:

_____ almost all new to me

_____ divided between new information and information I already had available

_____ not new information

USE

3. The material I requested was used by:

_____ myself, for personal and professional growth

_____ myself, for use in planning, implementing or deciding upon some specific activity

_____ a committee or team

_____ other (please specify)

USEFULNESS

4. The material I received was:

_____ very useful

_____ useful, except that _____

_____ not very useful because _____

TIMING

5. I received the response to my request:

_____ about when I expected to receive it

_____ later than I expected and too late to be useful

_____ later than I expected, but in time to be useful

RESEARCH ASSISTANT NOTES

6. At the bottom of the sheet from the Arizona Educational Information System, which is included with the materials sent as the result of a search request, there is usually a note from the Research Assistant who did the search, explaining the materials included or providing other information or comment. In reference to your search: would you check the statement below which best fits your case.

_____ there was no note from the Research Assistant at the bottom of the sheet

_____ there may have been a note at the bottom of the sheet, but I didn't notice it

_____ I read the note, and it was informative about the search

_____ I read the note, but it didn't tell me much about the search

BIBLIOGRAPHIES AND RESOURCE GUIDES

7. Check the statement below which best describes your case:

_____ I have not seen any bibliographies, news notes, or resource guides published by the Educational Resources Center

_____ I have seen some bibliographies, etc., but have not used them

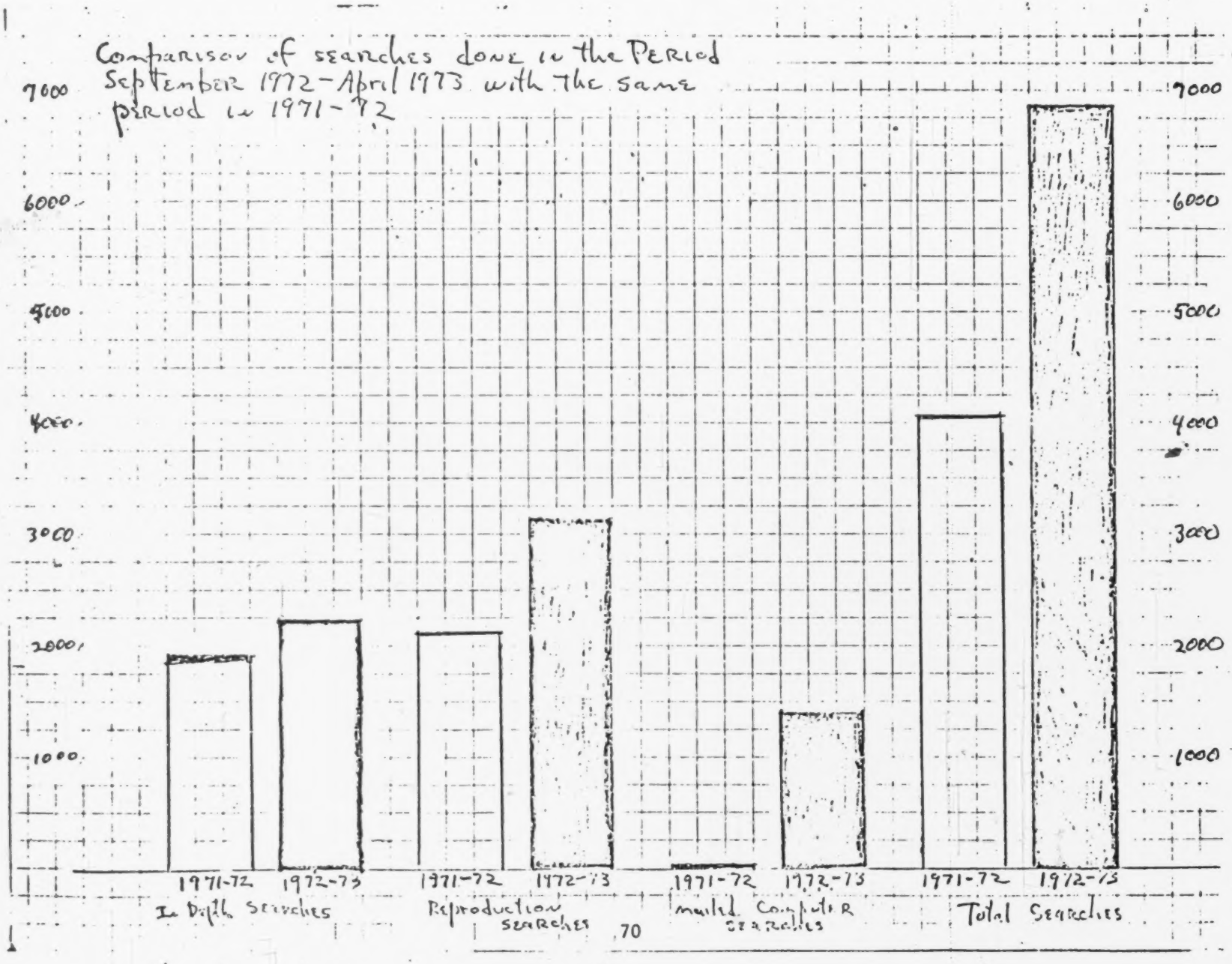
_____ I have used one or more bibliographies from which I ordered documents

COMMENTS

8. Would you use the space below to make any comments about this search or other you may have requested, or about the service in general. Thank you again for your cooperation.

APPENDIX F

SMERC SEARCH DATA


Comparison of searches done in the Period September 1972 - April 1973 with the same period in 1971 - 72
7000
6000
5000
4000
3000
2000
1000
1971-72
1972-73
In Depth Searches
Reproduction Searches
mailed Computer Searches
Total Searches

July 1, 1972 - July 1, 1973

SEARCH REQUESTS SUMMARY

Subscribing Member	In Depth Searches	Previous Yr.	Reproduction Searches	Previous Yr.	Mailed Computer Searches	Previous Yr.	Microfiche	Previous Yr.	Photocopies	Previous Yr.
ACSA	163	225	145	133	114	3	4878	4630	4246	4635
ALAMEDA	243	270	390	276	87	2	4698	4316	6130	4782
ARIZONA 9 mo.	395		224		201		5450		5502	
CHICO	211	193 *	192	47	53	5	3915	2069	3825	2886
LA VERNE COLLEGE	43	28 *	363	25	47	4	4129	596	4090	1013
MARIN	306	3 *	180		95	1	4547	43	6164	169
MERCED	58	88 *	80	69	18	1	1230	1470	1524	1401
MONTEREY	44	87	115	80	30		1179	1376	1349	1961
PLACER	48	128	92	66	35	2	1635	1714	1083	1987
RIVERSIDE	332	223 *	311	91	65	3	5921	3569	7110	3883
SACRAMENTO	141	256	102	111	50	2	2392	3515	3546	5254
SAN BENITO 5 mo.	27		13		1		371		265	
SAN BERNARDINO 7 mo.	19		26		9		649		501	
SAN MATEO	380	426	488	384	261	22	6362	5468	13088	10910
SANTA BARBARA 7 mo.	76		80		15		1242		1751	
SANTA CLARA	60	158	770	1160	163	7	6911	11232	6897	7413
SANTA CRUZ	79	30	115	53	28	4	1800	634	1731	703
SOLANO	25	62	38	42	6	2	550	840	569	1097
SONOMA	106	67 *	66	29	20		1708	797	1833	1043
TULARE	49	84	78	88	12		1208	1542	1039	1193
WHITTIER COLLEGE	20	7 *	228	69	454	20	2202	722	1804	302
YOLO	26	46 *	46	13	11	1	601	592	436	672
~~TOTALS~~ ODDS & ENDS	21	30	228	133	80	3	5444	2266	1724	959
TOTALS	2872	2411	4370	2869	1855	82	69022	47391	76207	52263

* Less than a year